AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the application:

Listing of Claims:

1. (**Currently Amended**): A process for the blind demodulation of a linear-waveform source or transmitter in a system ~~comprising~~ including one or more sources and an array of sensors and a propagation channel, said process ~~wherein~~ comprising steps of:

determining symbol ~~the symbol~~ period T ~~is determined and samples are taken~~and taking samples at T_e, such that $T = lT_e$, wherein l is an integer number and T_e is the sampling period;

constructing a spatio-temporal observation z(t), the mixed sources of which are symbol trains from the transmitter, ~~is constructed~~ from the observations $x(kT_e)$;

applying an ~~ICA type~~ Independent Component Analysis (ICA) – type method is applied to the observation vector z(t) in order to estimate the L_c symbol trains $\{a_{m-i}\}$ that are associated with the channel vectors $\hat{h}_{z,j}=\hat{h}_z(k_j)$;

arranging the L_c outputs $(\hat{a}_{m,j}, \hat{h}_{z,j})$ ~~are arranged~~ in the same order as the inputs $(a_{m-i}, h_z(i))$ so as to obtain the propagation channel vectors $\hat{h}_{z,j}=\hat{h}_z(k_j)$; and

determining the phase α_{imax} associated with the outputs ~~is determined~~.

2. (**Currently Amended**): The process as claimed in claim 1, further comprising estimating ~~wherein the~~ propagation channel parameters ~~are estimated~~ in order to determine the carrier frequency so as to compensate for the symbol trains in order to obtain them in baseband.

3. (**Currently Amended**): The process as claimed in claim 1, ~~wherein it includes~~further comprising a step of estimating the angle θ_p and delay τ_p parameters of the propagation channel.